
FEATURE ARTICLE

The United States Coast Guard's Integrated Deepwater System: Creating Opportunities for Enhanced Interoperability with America's Friends and Allies

By

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Integrated Deepwater System**

The terrorist attacks of September 11, 2001 tragically underscored the importance of international engagement to the United States and, indeed, our partners throughout the world. As rescuers rushed to save people trapped in the World Trade Center and the Pentagon, and viewers worldwide recoiled at horrific images of destruction and death, President George W. Bush declared that the nation found itself in a “new kind of war.” This war has already required the commitment of all levels of American government and the close cooperation of all civilized states to defeat the scourge of global terrorism.



In response, our government has created a multi-national, multi-layered, global coalition to prosecute this war against terrorists, their organizations, and their supporters. Much of the groundwork for this cooperation had already been put in place during years if not decades of quiet liaison among many federal departments, including the U.S. Department of Transportation (DoT), and their overseas counterparts.

Although sometimes not as visible as the Department of Defense (DoD), Department of State (DoS), and other departments with prominent international engagement roles in an increasingly globalized world, transportation is home to the United States Coast Guard (USCG). The Coast Guard, America's fifth armed service, conducts a host of international engagement efforts that directly impact the interests and citizens of our allies, friends, and even some potential adversaries around the world.

The Coast Guard deploys mobile training teams, trains foreign officers, and sponsors personnel liaison programs that focus on critical regional and international maritime needs. The service has developed a Model Maritime Service Code that has already been embraced by nations wishing to establish their own maritime security and safety organizations to protect their vital resources and interests in nearby seas. In the field, Coast Guard cutters and aircraft are frequent participants in combined exercises and regular visitors to foreign ports and facilities.

The Coast Guard is also a key player in the U.S. security assistance arena. Foreign military sales (FMS), including the transfer of excess defense articles, have long been an integral element of Coast Guard international engagement. Asset sales and transfers contribute directly to the Coast Guard's accomplishment of its own missions and helps achieve broader U.S. engagement goals, all the while helping our friends protect their maritime security and safety goals.

In the years ahead, however, the Coast Guard's Deepwater Initiative will present a vastly increased opportunity for engagement and security assistance. The Coast Guard established the far-reaching Integrated Deepwater System Program to recapitalize its aging stock of cutters, aircraft, and systems designed for sustained or long-range operations, often far from homeports and facilities. "The Deepwater Program is our center of gravity in shaping the future of the Service," Rear Admiral Patrick Stillman, Program Executive Officer, Integrated Deepwater System, noted.

The Deepwater Program will result in a dynamic system of assets that are mission-focused, modular, network-centric, and designed to minimize total lifetime operating cost. As such, there is great potential for foreign military sales of both existing Coast Guard assets and new construction Deepwater platforms and systems to our international partners. The scope of the Deepwater Program also presents numerous opportunities for cooperative programs between U.S. and foreign firms.

Recognizing this, the Coast Guard has established a dedicated deepwater international staff to educate prospective foreign customers on the capabilities, platforms, and systems that the program will generate. They are also successfully forging partnerships across the federal government. "This is my number-one project," Mr. Brad Botwin, Director of the Strategic Analysis Division in



the Commerce Department's Office of Strategic Industries and Economic Security, stated during a 2001 interview. "We are very serious and are dedicated to promoting 'Deepwater' to the world."

In all, the Deepwater Program will have a profound and exciting effect on engagement opportunities for years to come. The end result will be significant cost savings for the federal government, enhanced goodwill among U.S. allies and friendly nations receiving the Deepwater assets, and enhanced interoperability between U.S. and allied forces around the globe.

Deepwater Background

The Coast Guard established the Deepwater Program in 1996 to upgrade, modernize, and/or



replace its aging fleet of cutters and aircraft, as well as its command-and-control and logistics infrastructure, with an integrated system of shore-side, afloat, aviation, and information technology assets. Existing deepwater forces are technologically obsolescent and not up to the demands of the Coast Guard's critical maritime homeland security and other missions. All told, the Coast Guard is facing near-simultaneous block

obsolescence among its existing deepwater assets, including 93 cutters and 206 aircraft.

Instead of initiating concurrent, disconnected platform replacement programs, the Coast Guard's leadership decided to examine its deepwater requirements and force structure as an integrated system. This approach has allowed the service to build its plans for new Deepwater forces around common systems and technologies, common operational concepts, and a common logistics base, providing operational and cost efficiencies that it otherwise would not have if it had pursued several independent programs.

In December 1999, the emphatic and unanimous conclusion of the President's independent Inter-Agency Task Force on U.S. Coast Guard Roles and Missions was that "...the nation has an enduring need for a Coast Guard, specifically for a Coast Guard in the Deepwater environment, that there is a near term requirement for re-capitalization, and that the Coast Guard's Deepwater Capabilities Replacement Project should continue to be pursued."

Deepwater is also built upon a performance-based acquisition strategy. Instead of giving industry specifications for individual platforms or equipment, the Coast Guard projected and specified the capabilities it will need to carry out its worldwide deepwater missions during the next forty years. The service also emphasized the importance of maximizing operational effectiveness while minimizing total ownership costs. Industry teams were given the flexibility to determine the optimum mix of assets that will comprise the entire Integrated Deepwater System. They also had tremendous leeway to incorporate state-of-the-market technologies and processes in their design concepts.

To execute the Deepwater Program, the Coast Guard intends to work in partnership with the winning industry team, which will consist of a single, world-class system integrator and a supporting group of experienced, high-quality subcontractors. By structuring its acquisition this way, the Coast Guard is looking to benefit from private-sector innovation, best practices, and cost efficiencies. Moreover, by emphasizing public-private partnership, it hopes to move beyond the adversarial relationships that have marked other acquisition programs in the past.

Figure 1
Competing Deepwater Phase 2 Industry Teams

The Boeing Company

Subcontractors include:

- European Aeronautic, Defense and Space (EADS)
- Construcciones Aeronauticas S. A. (CASA)
- European Aeronautic, Defense and Space (EADS) Eurocopter
- Northrop Grumman Ship Systems Avondale Operations
- John J. McMullen & Associates, Inc.

Integrated Coast Guard Systems

A joint venture consisting of:

- Lockheed Martin Naval Electronics & Surveillance Systems (NE & SS) Surface Systems
- Northrop Grumman Ship Systems Ingalls Operations

Maritime Systems Alliance

A joint venture consisting of:

- Science Applications International Corporation
- Raytheon Company
- The Maintowoc Company, Inc.

As of early 2002, the Deepwater Program, the Coast Guard's largest acquisition program ever, is on schedule for a contract award during late spring. The Coast Guard released a request for proposal (RFP) for Phase 2 of the program on June 29, 2001. Figure 1 lists the three industry teams that have submitted their competing proposals on September 28, 2001, and the Coast Guard is currently evaluating them.

After the contract award, the program's success will depend upon the support it receives from the administration and Congress. Industry has developed its solution based on the 1998 fiscal year funding stream of \$500 million per year for the life of the program, an amount consistent with the funding the Coast Guard has received during past major acquisition efforts. Given the vast increase in operational tasking that the Coast Guard has received in the wake of the September 11th attacks and the fact that Coast Guard deepwater cutters, aircraft, and systems are playing a key role in protecting U.S. homeland security, it is likely that support will be forthcoming.

The Deepwater Program: A Unique Engagement Opportunity

The Coast Guard's security assistance programs have been a success for both the service and nation, albeit on a relatively small scale. The potential for further success will expand significantly in the coming years. The Deepwater Program will broaden the service's security assistance options across the board, opening up new possibilities for the sale of both new construction assets, cutters, boats, aircraft, and systems, and current surface platforms, as well as fostering a new level of interoperability between the Coast Guard and foreign navies and coast guards around the world.

Deepwater Foreign Sales

The Deepwater Program's effect on Coast Guard security assistance and its broader international engagement efforts will be profound. Perhaps most immediately, the introduction of new Deepwater platforms opens up significant opportunities for foreign military sales, including entire vessel and subsystem exports, and direct commercial sales by U.S. shipbuilders. The Integrated Deepwater System offers interested foreign nations access to a full spectrum of networked and highly capable maritime assets. These may include cutters, offshore patrol craft, search and rescue helicopters, unmanned aerial vehicles, tilt-rotor aero-systems, command, control, communications, computers, intelligence, surveillance and reconnaissance (C4ISR) upgrades, and an integrated logistics system. Some or all of this Deepwater "system of systems" will be available to U.S. allies.

Foreign military sales and direct commercial sales of new cutters and other deepwater assets will have direct economic benefits, both for U.S. taxpayers and the Coast Guard. Foreign military sales should lead to lower unit costs at home as suppliers achieve greater economies of scale. New-construction sales of Deepwater assets and systems also buttress the defense industrial base, particularly shipbuilders and their lower-tier suppliers, to the benefit not only of the Coast Guard but to the Navy and possibly other U.S. armed services as well. Foreign nations spend their FMS grants in the United States, and FMS contracts are one of the few areas where U.S. shipyards have had success in export markets. While FMS programs are conducted on a government-to-government basis, an arrangement that usually locks in U.S. administrative, logistical, and training support program funds ultimately flow to U.S. workers and U.S. companies, thus preserving a vital part of America's defense industrial capability.

As for potential foreign interest, some analysts project that the global demand for modest, cutter-sized ships, similar to those now being contemplated for the Deepwater Program, will top more than \$62 billion during the next twenty years. A list of countries that already have expressed interest in some aspect of the Deepwater Program is shown in Figure 2. Captain Richard Kelly, Deepwater Resource Sponsor in the Office of the Assistant Commandant for Operations, acknowledged, "What we need is in many ways what they need, a judgment underscored by our own research and outreach to several European and Asia-Pacific countries."

The listed nations have different reasons for their interest in deepwater. Many foreign navies and coast guards have missions or operate forces similar to those of the Coast Guard. Like the Coast Guard, many of them also are particularly interested in minimizing the total cost of ownership of their naval forces while maximizing system capabilities a key pillar of the program. To this end, the Coast Guard has issued guidelines that specifically allow commercially available and non-developmental items to be used throughout the program, including ship hulls, which could potentially make Deepwater cutter designs even more affordable and attractive overseas.

Figure 2
Potential Deepwater Program International Partners/Customers

Argentina	Finland	Philippines
Australia	Greece	Saudi Arabia
Belgium	Israel	South Africa
Brazil	Italy	Thailand
Canada	Japan	Turkey
Chile	Kuwait	United Arab Emirates
Egypt	Norway	United Kingdom

Other countries are interested in opportunities for international partnering and armaments cooperation programs. There already is foreign participation on the deepwater industry teams and more may be possible in the future. The industry system integrators are open to competing Deepwater work to suppliers outside of the existing teams in order to obtain technical expertise or to foster intra-team competition. Depending on the nature of this work, additional overseas firms may be able to bid on various Deepwater tasks. Additionally, as the Commerce Department's Brad Botwin notes, that Department's Best Manufacturing Practices program for U.S. industry can be expanded to select countries and foreign manufacturers who might be willing to partner with U.S. Deepwater industry teams, further enhancing the two-way street aspects of U.S. security assistance programs.

It still remains to be seen whether technology-transfer and licensing issues, major hurdles in some FMS programs, will be ameliorated in the Deepwater Program. New command, control, communications, computers, intelligence, surveillance, and reconnaissance equipment may need to be protected, but overall the commercial, non-defense aspects of much of the Deepwater Program should increase the opportunity for domestic and international partnering. Overall, foreign interest in different aspects of the Deepwater Program should help the Coast Guard produce highly capable forces at an even more affordable cost.

Existing Deepwater Asset Transfers

In addition to foreign sales of new platforms and equipment, the Deepwater Program will provide the security assistance community with other opportunities to engage partner nations. Many foreign countries will not be able to afford new-construction Deepwater systems, but they still may benefit from the transfer of older Coast Guard assets, assets that will be replaced by more modern Deepwater platforms and systems, that are nevertheless more capable than the ships they currently operate.

Interoperability

The FMS and other security assistance programs have long made critical contributors to U.S. national security and are a vital means to ensure coalition interoperability in peacetime operations and contingencies. Deepwater-focused security assistance will be a part of this overall effort, fostering interoperability with other navies and coast guards and contributing to U.S. regional stability goals and will create a force multiplier for the service's own missions.

The roles that the Coast Guard fulfills, upholding maritime security and safety, conducting national defense missions at home and abroad, protecting natural resources, and facilitating U.S. maritime mobility, almost always require close interaction with foreign law-enforcement and

military forces. By providing foreign maritime forces with the tools to carry out their missions, the Coast Guard improves its own ability to carry out its own operational tasks such as drug interdiction or search and rescue.



From an operational standpoint, deepwater overseas sales will promote a higher level of Coast Guard interoperability with forces around the world. One of the key goals of the Deepwater Program is to develop the highest level of interoperability with U.S. Navy forces. Unlike the Coast Guard's current cutters, the new Deepwater platforms will possess a high degree of interoperability with these former U.S. ships, and hence with those foreign navies to whom they belong. Moreover, the Coast Guard will still be able to work productively with the foreign maritime services that have taken possession of its existing assets.

Promoting Deepwater Opportunities

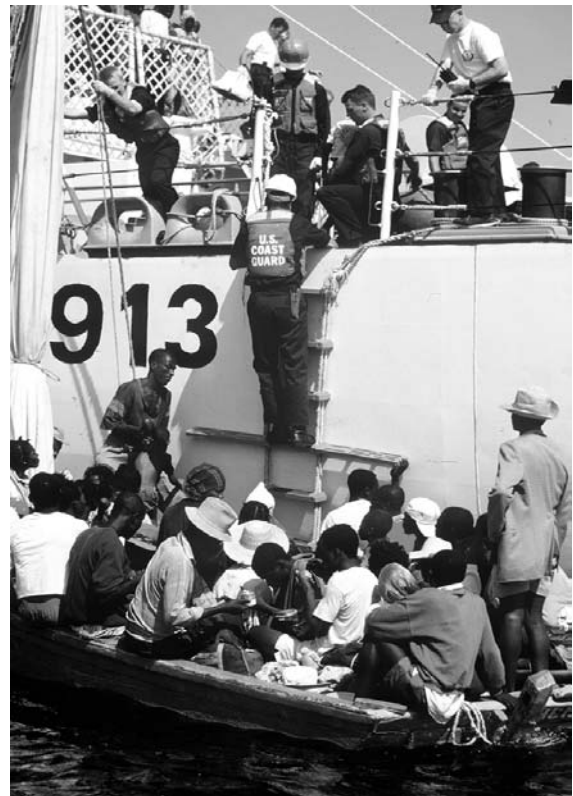
The Coast Guard is not sitting still and for several years has been engaged in a comprehensive set of preparatory overseas activities. Because of Deepwater's importance to the Coast Guard's and the United States' future, the service established its first-ever Program Executive Office for Deepwater, under Rear Admiral Stillman, in April 2001. He is responsible for overseeing all Deepwater efforts. Within the Program Executive Office, the Deepwater International staff is engaged in a continuing informational effort to educate prospective foreign partners and the security assistance community as to what Deepwater entails and how they might benefit from some form of participation in the program.

Deepwater International has been the link between the overall Coast Guard acquisition effort and the international community. To this end, the staff has studied potential foreign markets for Deepwater systems. Working closely with defense attachés and security assistance officers, they

have briefed numerous foreign military officials on the possibilities that the program offers and have taken the Deepwater message to various international expositions and conferences.



U.S. Coast Guard picking up refugees in an unseaworthy vessel.



The Deepwater international staff also has focused on building partnerships throughout the security assistance community. For example, they have been working with the Director of Security Assistance and Arms Transfers within the Department of State. In the Department of Defense, they have opened communications channels with the Defense Security Cooperation Agency, participated in the Ship and Shipboard Systems Planning Forum organized by the Navy International Programs Office, and presented Deepwater educational briefings at several security assistance officer conferences.

As noted, the Program Executive Office's Deepwater international staff is also building ties with the Commerce Department. They have signed an agreement with the Bureau of Export Affairs in the Department of Commerce, under which that bureau will help promote sales of Deepwater equipment to navies around the world. This is a primary reason for the Deepwater Program's selection as the number-one priority of Commerce's Office of Strategic Industries and Economic Security.

Currently, Coast Guard and other federal Deepwater promotion efforts are of necessity limited to a description of capabilities and processes. This will change once the Deepwater contract is in place, and the service and other agencies can begin marketing specific systems and platforms. During this new phase, the United States and foreign nations will be able to craft more concrete cooperative proposals for FMS or other foreign cooperation with the program.

Strengthening International Engagement

Like America's overall security, Coast Guard operations are inextricably tied to international events, activities, and cooperation. The Deepwater Program offers a unique and important way for the U.S. government to expand goodwill abroad and simultaneously act as a good steward of the public purse. Coast Guard international engagement activities have been an important aspect of U.S. outreach abroad. Deepwater will greatly enhance these outreach efforts in the coming decades.



**The Coast Guard
confiscating illegal drugs.**



More drug disposal activity.

Equally, it will help to ensure that the United States and its partners overseas can effectively and efficiently meet the daunting needs for maritime safety and security in the 21st century. “The transnational threats to our maritime security are in many regards identical to those challenging America’s friends throughout the world,” Rear Admiral Stillman remarked. “Drug traffickers, illegal aliens, unsafe and unseaworthy vessels, marine pollution, piracy, maritime contraband, illegal fishing, and more . . . all combine to endanger maritime security and safety. Deepwater will provide us all the capabilities the United States will need across the board to meet these threats and challenges for decades to come.”

About the Author

Mr. Gregory L. Giddens, a member of the Senior Executive Service, is the Deputy Program Executive Officer for the Integrated Deepwater System. For additional information on the Deepwater Program, see <http://www.uscg.mil/deepwater>.